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ABSTRACT

RESEARCH FCE FFITER SCHOOLS, INC. (RBS) IS CONCERNED WITH THE THREE PHASES OF TEACHER TRAINING: PRESERVICE, RETRAINING, AND CONTINUOUS TRAINING. THIS REPORT CHRONICLED ITS ACTIVITIES IN EACH OF THESE FIELDS FROM THE INITIAL TRAINING DONE IN THE FIRST YEAR OF OPERATION, TO THE FRESENT ATTEMETS TO DEVELOP PROGRAMS WHICH CAN BE HANDLED BY LOCAL ADMINISTRATIONS AND COLLEGES. A PACKAGE OF MATERIALS IS EFING DEVELOPED THAT CAN TRAIN TEACHERS TO USE INDIVIDUALIZATION IN INSTRUCTION. COLLEGE LEVEL COURSES HAVE BEEN DESIGNED TO TEACH THE FUNDAMENTALS OF INDIVIDUALIZATION. A TEAM OF MONITORS HAS BIEN ESTABLISHED TO WORK WITH TEACHERS USING THE INDIVIDUALLY PRESCRIBED INSTRUCTION (IPI) PROGRAM. RBS HAS ALSO BEEN INSTRUMENTAL IN INSTITUTING CONFERENCES OF TEACHERS AND ADMINISTRATORS USING IPI. (JY)



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## TEACHER EDUCATION FOR INDIVIDUALIZED INSTRUCTION

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# TEACHER EDUCATION FOR INDIVIDUALIZED INSTRUCTION

Research for Better Schools has as its major focus individualization and humanization of education. One of its specific projects is the field development and testing of Individually Prescribed Instruction, an instructional system engineered by the Research and Development Center of the University of Pittsburgh. RBS assumed the major responsibility of installing IPI in a variety of school settings. During the initial phases of these efforts, it became obvious that teacher training was one factor that had to be considered very seriously.

The first year of operation included the training and retraining of teachers in the schools of Harrisburg, Trenton, Dover and Quakertown. Most of the training in these four school systems was handled by Research for Better Schools personnel who had previous training in the IPI laboratory school maintained by the Research and Development Center. RBS staff members concentrated their training efforts in inservice sessions with the teachers in their respective schools. As long as there were only four schools involved, teacher training was not a major problem. However, after the first year of operation, twenty additional schools were introduced to the IPI system and training problems began to loom large. These increased training needs were handled in several ways.

Research for Better Schools in cooperation with the Learning Research and Development Center, the School of Education, University of Pittsburgh, and the Baldwin-Whitehall School District planned, designed and conducted a



summer institute two years in a row. The six-week sessions were divided into two broad areas for presentation. The morning sessions were conducted at a local elementary school using the IPI procedures in its summer program. Institute members had an opportunity to observe IPI teachers in action, act as teacher aides, and eventually serve as classroom teachers. The afternoon sessions were designed to follow-up the morning sessions and to provide an opportunity for the theoretical presentation of the assumptions and principles upon which IPI is based.

During the summer of 1967, RBS also conducted six other training programs. These programs varied in length from 3 to 6 weeks. All sessions were aimed at one particular faculty and attempted to prepare the school for Individually Prescribed Instruction. During all of the summer sessions, youngsters were involved so that we could keep teachers where the action was.

During the 1966-67 school year, RBS established a demonstration school in the Baldwin-Whitehall School District which is also used as part of the training cycle. The demonstration school was used as part of the training cycle by having teachers who were being trained in different locations spend anywhere from 3 to 5 days working with experienced teachers. This meant, then, that at least one week of actual experience in individualized situations was part of the training experience offered all teachers. The demonstration school had established specific kinds of programs which varied depending upon the number of days involved and the sophistication of the teacher being trained.



These experiences from the past year and a half in retraining teachers were indication enough to conclude that, first of all, programs must be developed that practice what they preach. That is, a retraining program for teachers is needed that is individualized about individualization. The second conclusion that has been reached is that teachers when retrained for specifics of the IPI program, tend to overemphasize the mechanics of the system. It is obvious that a conceptual model of individualization must be part of the retraining.

As RBS again considered the expansion of its training facilities, three areas requiring systematic attention were identified:

- Area 1. Preservice training and the need to work with schools of education to establish some type of curriculum that can introduce prospective teachers to individualized instruction in the early stages of their preparation.
- Area 2. Retraining of existing staff and the need to work with school systems to conduct an inservice program on the individualization of instruction and specifically the system of Individually Prescribed Instruction.
- Area 3. Continuous training of staff and the need to prepare administrators in staff development related to individualized instruction and Individually Prescribed Instruction.

Having identified these three major areas of training needs: Preservice, Inservice Retraining, and Continuous Training, RBS was able to use its past experiences to describe the kind of training programs needed to answer these needs.



The staff of RBS has initiated specific projects in each of the three areas.

The following discussion is a summation of these projects and events in each area.

The first area is Preservice Training. It is obvious that prior to the student teaching experience, prospective teachers need to have much more information about the importance of individualizing instruction and some experience with specific projects that purport to individualize instruction.

A seminar on preservice teacher training was held by Research for Better Schools on February 26 and 27, 1967. All of the 104 colleges and universities in Pennsylvania, New Jersey and Delaware which are involved in teacher training were invited to send two representatives. The final participants of the conference represented 52 of these institutions.

The focus of the seminar was to provide information concerning the national emphasis on individualized instruction and to discuss the implications of this for teacher training. Underlying these concerns were the questions of how those responsible for training teachers feel about individualizing instruction and what they see as the goals for education.

In order to provide a common experience in individualization, all participants were invited to visit McAnnulty Elementary School, the IPI demonstration school in Baldwin-Whitehall, Pennsylvania. The experience at McAnnulty illustrated one means of individualizing instruction and, hopefully, provided a stimulus for looking at individualized instruction in any setting.



The keynote address was given by Dr. Glen Heathers. He presented an eight step model of individualization and an overview of relevant programs throughout the country. From his speech, it was apparent that there is a strong interest in individualization prevalent today, but simultaneously, it was realized that there is a gap between what is being said and what is being done.

Small group discussion sessions on February 27 had the general purpose of reviewing the groups' experiences at McAnnulty, examining individualized instruction as a system, and discussing what it implied for teacher training. The participants also shared information about current practices at their institutions in terms of training teachers for individualization. During this conference, representatives from the schools of education addressed themselves to the implications for teacher training and listed some twenty appropriate strategies that could be used by teacher training institutions, not necessarily being used, however. The conference also concluded that more research was needed about the effect of individualized programs to convince colleges of the need to update their programs.

Following this conference, Research for Better Schools was approached by the East Stroudsburg State Teachers College about the possibility of establishing a course for college juniors about individualization. Their specific request was two-fold. (1) They wanted to introduce the Individually Prescribed Instruction program into their laboratory school and (2) they wanted to introduce a course for juniors about individualization and IPI, prior to their student teaching experience. This effort was welcomed by RBS and we cooperated in both endeavors. A one-semester course based on the theory of



individualization and the specifics of the IPI math program was developed.

The second group of students are now half-way through the course. At the end of this semester, the plan will be revised and expanded as it was at the end of the first semester.

Area two, Retraining of Teachers has received more attention from RBS.

RBS has concentrated its efforts in teacher education on developing a teacher training program that will (1) enable the school to conduct its own training program; (2) enable the teachers to conceptualize a model of individualized instruction as a basis for instructional decision making in IPI; and (3) enable the teachers to plan and conduct IPI in their classroom.

The training program is being constructed upon the model of Individually Prescribed Instruction and contains five specific packages each consisting of behavioral objectives, pre- and post-tests of the objectives, self-instructional materials and equipment and recommended learning settings. Each package provides four types of activities. They include: concept-building related to individualized instruction; analysis and application of the concepts to IPI; practice in using IPI skills and materials as routine exercises; working through the math continuum and assuming the role of teacher, aide, and student as needed; discussion designed to provide opportunity for clarification and expression of reactions, to develop and use skills for planning sessions to cover suggested topics, questions or case studies. The five packages of training materials are concerned with (1) The Theory of Individualization and the Pretest IPI Mathematics Program, (2) The Theory of Behavioral Objectives and the IPI Mathematics Program, (3) Diagnosis of



Learning, (4) Prescription Writing and (5) Planning for Individualized Instruction including analysis of data. The selection of these areas was based on past experience of needs of teachers to retrain them for Individually Prescribed Instruction.

The training program has been given a preliminary field test during the months of October, November and December in two New Jersey schools that were preparing to install IPI in January. Revisions and refinement of the program have taken place. A second testing will take place this summer in 100 schools.

The five packages that have been prepared for the retraining of teachers have several general principles under which they operate. The first one is development of the specific packages of material to permit the individualization of the training program for teachers so we can, for once in our lives, practice what we preach. Secondly, the materials have been developed in such a way that they can be carried by the U. S. mail and that, hopefully, with some help, administrators can lead their faculties through these particular packages.

Also, it was very important to introduce each of the packages with a theoretical base and move from that theory to its specific application in the IPI program. However, during the first field testing of packages, the teachers resisted this latter approach. They appeared more concerned about the here and now, the practical application of IPI and how it affects them. Therefore, the later packages have had to blend more closely the theory and the practice. Said in another way, RBS' initial efforts and initial thinking was to build all of the packages with some foundation, some basis in theory, and then move



this to the specifics that are involved in the IPI math program. At this point, some of this thinking has changed, because of the needs and the demands of the teachers.

To gather data about the packages of materials being used for the retraining, specific instruments and techniques have been prepared. Information is being gathered about (1) the implementation of the program and (2) outcomes from the program. One instrument is used by the teachers to report their reactions to the training procedures and materials. The trainer uses two instruments. One to report the procedures used to conduct the sessions, and another to summarize and evaluate each session. In addition, all sessions are taped for further analysis. Since all packages contain pre-tests and post-tests, outcome data are gathered by running item analyses on these tests. Finally, all RBS staff members who are concerned with IPI work through the packages and critique the contents.

The successful development of packages of materials to retrain teachers, hopefully, will put Research for Better Schools out of the institute business and shift the responsibility for retraining local staff to local administration and college resources. However, it should be pointed out that before successful implementation of a retraining program can be carried out by local administrators, some very precise information must be prepared and developed for his retraining. This is also an area of current concern.

The third area of teacher training labeled as Continuous Training is based upon the premise that this innovation can only be successful if strategies are



developed to keep the teachers abreast of what is happening and to refine their skills about individualized instruction. Research for Better Schools has established a team of monitors. Each monitor works with a specific school that is involved in IPI and systematically gathers data about the teachers and the patterns they use in diagnosis and prescription writing, and the students and their performance in the program. These data are gathered on a weekly basis, generally taken from prescriptions that are written for each youngster by each teacher. The information is being used to develop strategies for the administrator to use in his Planning Sessions with teachers to improve their sophistication and to continue training for a better individualized program. Presently, data is being gathered about each teacher concerning her style in writing prescriptions. Regularly, this information is sent back to each teacher in a "non-judgmental" way. With the help of the administrator, teachers make their own judgement about this feedback of material. Styles do change.

Other dimensions that the monitors are involved in include the self-study of work that is being done by Dr. Daniel Prescott in his child-study program in the Omaha Schools. They are attempting to adapt his ideas to design a set of diagnostic procedures suited to individualized instruction and IPI. This kind of information as it is collected and summarized is then fed back to the local administrator who in turn can take it back to his teachers.

RBS feels that Continuous Training and the specific strategies to make it work, must be part of this program. This opportunity to gather these data and make the suggestions is an excellent one, since information can be



collected systematically and specific strategies can be supplied for administrative training and continuous training of staff.

RBS, as a part of its responsibility for providing regional leadership in the area of Continuous Training in IPI and in cooperation with the R & D Center, conducted a Conference of Teachers and Administrators using IPI on February 3-5, 1967. During this time, the participants probed deeply into the areas of role definition and training needs as well as the problems and issues involved in the interactions between various IPI roles. Besides contributing to the continuing education of the conference participants, invaluable feedback data on operation of IPI as a system was obtained. A second conference of teachers was held. Again teachers addressed themselves to specific problems and made very specific suggestions. A separate report about both conferences is available.

Briefly then, Research for Better Schools is concerned with the three phases of teacher training: Preservice, Retraining and Continuous Training. Efforts are being made to attack all three areas. A major effort, now underway with the development of packages of materials that can train teachers about individualization, is being field tested in several schools with anticipation of rewriting all the materials and broader field testing the summer of 1968 and next school year.

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